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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,484	08/14/2006	Krister Hansson	TPP 32002	9428

74217 7590 03/18/2010

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EXAMINER	
ORLANDO, MICHAEL N	

ART UNIT	PAPER NUMBER
1791	

MAIL DATE	DELIVERY MODE
03/18/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/578,484	HANSSON ET AL.	
	Examiner	Art Unit	
	MICHAEL N. ORLANDO	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-7 and 9-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-7 and 9-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The arguments and amendments submitted 01/05/2010 have been fully considered. The previous rejections on the merits are hereby withdrawn. The claimed subject matter is still found to be unpatentable over the new prior art as provided below.

PROSECUTION

1. In view of the arguments filed on 01/05/2010, PROSECUTION IS HEREBY REOPENED. New art is provided which reads on the merits of the claims as set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Philip C Tucker/

Supervisory Patent Examiner, Art Unit 1791

Claim Objections

2. Claim 17 is objected to because of the following informalities: The use of the term "that" in line 3 of the claim is awkward and should be removed. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 16 recites the limitation "the position milling" in line 3. There is insufficient antecedent basis for this limitation in the claim. The claims from which claim 16 depend from only disclose machining, not milling.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 2-7 and 9-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giertz et al. (EP 1,153,736) in view of Tychsen (US 2001/0047702).

Regarding claim 20, Giertz discloses a process for the manufacture of a decorative board with thermosetting resin impregnated layers and a décor paper in the form of a sheet. The décor paper is placed on a surface of a base layer and bonded thereto by pressing under heat and pressure. The pressing utilizes a matrix (press foil) with a surface structure coinciding with the intended décor pattern and such is accurately placed on top of the decor paper before pressing and separated after pressing to obtain the desired decor surface (abstract). The matrix is further defined as either a plate or a press foil ([0009]). Giertz discloses that the structure foil web can be cut into sheets (i.e. multiple press foils) and positioned on the décor web. Giertz

discloses that the lamination process utilizes ccd cameras to recognize position indicators on either or both of the structure foil and décor layer in order to ensure alignment ([0014]). The Jepson claim language indicates the differences between the prior are not taken to be the board itself but rather the production methods, particularly the use of automated tools such as cameras and computers. The term joining edge is not defined in a limiting manner. The edge of Giertz can be a joining edge.

Giertz differs from the present claims in that the ccd camera is merely utilized for alignment and not for a subsequent cutting step. It is noted though that Giertz is already teaching the important principle of utilizing cameras to accurately manipulate and produce decorative boards. In addition it is further noted that a computer is merely a machine that receives and data, processes it and provides a useful output and as such Giertz system which recognizes position indicators, processes that information and then aligns the layers would be seen to consist of a computer (though not directly stated). Nonetheless further proof is provided below.

Tychsen, drawn also to the decorative laminate board art ([0004]), discloses that it was known to utilize a system which aligns the layers via at least one camera and then utilizes additional cameras to determine appropriate cutting locations and move the cutting tool for edge cuts (claims 1 and 7). In addition Tychsen discloses that pre-made markings can be used for alignments and that a computer is coupled to the system which stores the data and allows for execution of the cutting stage (claim 7, [0028]). It would have been obvious to utilize the method of Tychsen with the board of Giertz because such would have allowed for accurate cutting of the board to length and would

have alleviated to a great degree the amount of human error in light of the system now being processed by the computer.

Regarding claims 2 and 3, Giertz discloses adding an overlay paper as the surface layer of the laminate to increase wear resistance whereby such is impregnated with melamine-formaldehyde and contains hard particles with average sizes of 1-100um ([0013]). The impregnation of the sheet coating of hard particles makes up the sheet. The sheet is used during the lamination procedure as a cover layer as seen in figure 1 (reference 5 is the impregnated overlay).

Regarding claims 4 and 5, Giertz discloses adding an overlay paper as the surface layer of the laminate to increase wear resistance whereby such is impregnated with melamine-formaldehyde and contains hard particles with average sizes of 1-100um ([0013]). Giertz does not explicitly teach the particle ranges of 50nm-150um or 50nm to 30um.

Clearly the disclosed range of 1-100um substantially overlaps the claimed ranges and the courts have held that in cases where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). It would have therefore been obvious to utilize the claimed ranges.

Regarding claim 6, suitable base layers of used in the invention of Giertz include fiber board or particle board ([0008]).

Regarding claim 7, the base layer sheets of Giertz are impregnated with phenol-formaldehyde resin ([0016]).

Regarding claims 9-10, Giertz discloses a suitable décor pattern whereby there are rows of bars and those bars are offset in the longitudinal direction. Sections of bars can either be parallel to the longitudinal direction or perpendicular (i.e. latitudinal) ([0011]).

Regarding claims 11-12, as indicated above Giertz discloses a suitable décor pattern whereby there are rows of bars and those bars are offset in the longitudinal direction. Sections of bars can either be parallel to the longitudinal direction or perpendicular (i.e. latitudinal) ([0011]). Giertz does not explicitly state that such results in rectangle and/or square panels; however, it is clear that perpendicularly related bars cross at right angles (perpendicular indicates such) and given such the repeating pattern would produce a meshed design with varying rectangles and/or squares based upon the spacing of the alternate (i.e. longitudinal and latitudinal) bars. Modifying the spacing to ensure such a specific type of rectangle (i.e. a square) is merely a design choice and within the purview of an ordinary skilled artisan. Also note that courts have held that features relating to ornamentation cannot be relied upon to patentably distinguish the claimed invention from the prior art (In re Seid, 161 F.2d 229, 73 USPQ 431, CCPA 1947).

Regarding claims 13 and 14, the décor paper of Giertz have positioning means such as color dots holed and indentations ([0010]).

Regarding claims 15, as set forth above Giertz utilizes position indicators (markings) and cameras to align the boards. Also as set forth above Tychsen utilizes indicators (markings) and cameras in order to guide machining of the boards edges. In

combining these two teachings to produce a more accurate board the two finite predictable solutions would have been to either both utilize the same markings or each utilize different markings. The courts have held that it is obvious to try each possible solution when choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success. In this case there are only two solutions and furthermore one would have been specifically motivated to try utilizing the same markings in order to predictably reduce time and reduce the workload of providing an increased number of markings.

Regarding claim 16, the term joining element is broad and can be nearly anything. The machined edges of Tychsen are taken to be joining elements since they are elements capable of being adjoined (abutted together). In addition the thermosetting resin which impregnates the paper and forms the bond between Giertz's sheets is provided at the ends and can also be taken to be a joining element. Also as set forth above the claim has antecedent basis issues, but it is noted that manipulating the machining tool via the use of position indicators has been discussed above.

Regarding claim 17, as set forth above it was known to use cameras which recognize position indicators and then send data to computers for appropriate processing (both alignment and cutting). Tychsen specifically discloses that the cameras can read the indicators, store the data and then be used to position the cutting tool ([0028]).

Regarding claim 18, Giertz discloses the use of cameras and the use of both structural and colored position indicators ([0009], [0010]). This therefore implies that

Giertz recognized the use of cameras that can recognize both surface structure and color. The combination of both types of these cameras would have flowed logically from the teachings of Giertz as one would expect that since both color and structural recognition cameras could be used that it would have been expectedly successful to utilize both at the same time to ensure accurate matching of both the colored and structural markings. It would have been obvious to combine two equivalents (optical recognition systems for aligning the board) for the same purpose (two provide optical recognition for the alignment of the boards). The courts have held combining prior art elements according to known methods to yield predictable results to be an obvious matter (*KSR*, 550 U.S. at ___, 82 USPQ2d at 1396).

Regarding claim 19, Giertz discloses that the structure foil (matrix) is guided and aligned with the use of a ccd camera and position indicators prior to lamination ([0014], [0016]). As set forth above the system of Giertz would be generally recognized as a computer since it reads information, processes that information and then executes a function. Nonetheless, it is dually noted that such computer controlled systems that store and process camera information for the production of decorative boards are generally known through Tychsen as provided above. It would have been obvious to use a computer system in order to decrease human error and increase automation.

Regarding claims 21-23, Tychsen discloses that the boards are first cut by a saw (cutting device) and then milled by a milling device ([0027]). Tychsen fails to teach that the computer/camera system is used for both the milling and cutting steps; however this is found to be an obvious deviation from the teachings of Tychsen because it amounts

to the use of a known technique (computer/camera guidance of processing tools and more specifically those for shaping the board) to a similar device (a board) to yield predictable results (reduction in human error and automation of the process). The courts have held such an issue as utilizing a known technique to improve a similar device in the same way to be an obvious matter (*KSR*, 550 U.S. at ___, 82 USPQ2d at 1396).

Regarding claim 24, Giertz utilizes a structured press foil during the formation of the laminate to add surface structure (i.e. emboss) to the laminate (abstract).

Regarding claims 25 and 26, as set forth above the use of cameras for increasing the alignment of such decorative laminates is known. In addition it is noted that Giertz discloses that the structure foil (matrix) is guided and aligned with the use of a ccd camera and position indicators. Alignment means that the system is moved in the direction of misalignments, be it longitudinal or latitudinal. It would have been substantially obvious for an ordinary skilled artisan to have moved the layer or layers in a back to front or side to side manner for realignment based on Giertz general teaching of alignment.

Regarding claim 27, as set forth above the camera/computer controlled alignment and cutting steps are well known. Also note that it was known to use multiple cameras for alignments as set forth by Giertz ([0014]) and by Tychsen ([0007]). In addition Tychsen provides that cutting is done after alignment (claim 1) and discloses that the alignment entails aligning the décor and structured layers ([0014]). The only difference between the prior art and the present claims is the utilization of a computer for storing and processing data during and after the alignment step. Such would have

flowed logically by the prior art provided though since the general method was known (utilize multiple cameras for alignment, align before cutting and align the structured layer with the décor layer) and since Tychsen provides the important teaching that information read by the cameras can be both read, stored and processed by computer systems ([0028]). It would have been obvious to have utilized the computer system during the alignment stage as well in order to read, store and process camera data in an efficient and accurate manner to reduce human error and increase automation.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. New art has been provided.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL N. ORLANDO whose telephone number is (571) 270-5038. The examiner can normally be reached on Monday-Thursday, 7:30am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip C. Tucker can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MO

/Philip C Tucker/
Supervisory Patent Examiner, Art Unit 1791